AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

1.   (Currently amended) A computer program product tangibly embodied in a computer-readable storage medium, the product comprising instructions operable to cause a data processing apparatus to execute a method for navigating user interface elements <u>displayed</u> on a ~~display~~ screen, the method comprising:

>   ~~at application run time,~~ grouping the <u>displayed</u> user interface elements <u>alphabetically</u> into groups according to characters contained in text labels associated with the user interface elements, the user interface elements indicating, on the ~~display~~ screen, a user interface element currently having focus to receive user input;

>   detecting a user navigation input comprising<u>:</u>

>>   ~~one of~~ a forward user navigation input ~~or a backward user navigation input, the forward user navigation input~~ comprising a forward modifier key press combined with a key press of ~~a group identifier~~ <u>at least one text character identifying one of the groups of user interface elements</u>, and

>>   ~~the~~ <u>a</u> backward user navigation input comprising a backward modifier key press combined with a key press of [[a]] <u>at least one text character identifying one of the groups of user interface elements</u> ~~group identifier~~;

>   identifying a group of user interface elements associated with the ~~group identifier~~ key press <u>of at least one text character</u> by comparing the ~~group identifier~~ key press <u>of at least one text character</u> to the

characters contained in the text labels associated with the user interface elements; and

shifting input focus to a user interface element in the identified group based on the user navigation input, <u>the shifting comprising:</u>

~~wherein,~~ when the user navigation input is detected:

determining a current group <u>of user interface elements</u> that contains the user interface element currently having input focus, and

determining a target group <u>of user interface elements</u> that has a corresponding text label containing characters matching the ~~group identifier~~ key press <u>of at least one text character</u> ~~the group identifier key press~~;

~~wherein~~ when the user navigation input is the forward user navigation input:

<u>shifting</u> input focus ~~is shifted~~ in the forward direction to a next user interface element in the current group having a text label containing characters matching the ~~group identifier~~ key press ~~if~~ <u>of at least one text character when</u> the current group is the same as the target group, and

<u>shifting</u> input focus ~~is shifted~~ to a first user interface element in the target group ~~if~~ <u>when</u> the current group is not the same as the target group[[,]]; and

~~wherein~~ when the user navigation input is the backward user navigation input:

shifting input focus is shifted in the reverse direction
to a previous user interface element in the
current group having an associated text label
matching the group identifier key press if of at
least one text character when the current group
is the same as the target group, and

shifting input focus is shifted to a user interface
element last in order in the target group if when
the current group is not the same as the target
group.

2.   (Canceled)

3.   (Currently amended) The product of claim 1, wherein the selected identified
group of user interface elements is identified when the text labels associated with
the user interface elements contain first first characters matching the group-
identifier key press of at least one text character.

4.   (Currently amended) The product of claim 3, wherein the first character matches
the group identifier key press of at least one text character if both are the same
character regardless of character case.

5.   (Currently amended) The product of claim 3, wherein the first character matches
the group identifier key press of the text character if both are the same character
in the same case.

6 - 8. (Canceled)

9.   (Currently amended) A computer program product tangibly embodied in a computer-readable storage medium, the product comprising instructions operable to cause a ~~data processing apparatus~~ computer to execute a method for navigating user interface elements displayed on a ~~display~~ screen, the method comprising:

    ~~at application run time,~~ grouping the user interface elements displayed on the screen alphabetically into groups according to characters contained in respective text labels associated with the user interface elements, the user interface elements indicating, on the ~~display~~ screen, a user interface element currently having focus to receive user input;

    detecting a sequence of one or more user navigation inputs~~, each user navigation input~~ comprising:

    ~~one of~~ a forward user navigation input ~~or a backward user navigation input, the forward user navigation input~~ comprising a forward modifier key press combined with a key press of ~~a group identifier~~ at least one text character identifying one of the groups of user interface elements, and

    ~~the~~ a backward user navigation input comprising a backward modifier key press combined with a key press of [[a]] at least one text character identifying one of the groups of user interface elements ~~group identifier~~;

    generating a navigation string from the ~~sequence of the one or more user~~ forward or backward navigation inputs;

    identifying a group of user interface elements by comparing the navigation string to the characters contained in the text labels associated with the user interface elements; and

shifting input focus to a user interface element in the identified group
based on the navigation string, the shifting comprising:[[;]]

~~wherein,~~ when the user navigation input is detected:

determining a current group of user interface
elements that contains the user interface
element currently having input focus, and

determining a target group of user interface elements
that has a corresponding text label containing
characters matching the ~~group identifier key
press~~ navigation string;

~~wherein~~ when the user navigation input is the forward user
navigation input:

shifting input focus ~~is shifted~~ in the forward direction
to a next user interface element in the current
group having a corresponding text label
containing characters matching the ~~group
identifier key press~~ navigation string when ~~if~~
the current group is the same as the target
group, and

shifting input focus ~~is shifted~~ to a first user interface
element in the target group when ~~if~~ the current
group is not the same as the target group, and

~~wherein~~ when the user navigation input is the backward user
navigation input:

shifting input focus ~~is shifted~~ in the reverse direction
to a previous user interface element in the
current group having a text label containing
characters matching the ~~group identifier key~~

press if navigation string when the current
group is the same as the target group, and

shifting input focus is shifted to a user interface
element last in order in the target group when
[[if]] the current group is not the same as the
target group.

10. (Currently amended) The product of claim 9, wherein instructions to detect
detecting a sequence of one or more user navigation inputs comprises comprise
instructions to:

detect detecting a sequence of forward user navigation inputs, the
sequence having a first user navigation input and a last user
navigation input;

initialize initializing the navigation string when the first user navigation
input is detected;

start starting a time out interval with each forward user navigation input;
and

determine determining the last user navigation input as the input after
which no forward user navigation inputs are detected within the
time out interval.

11. (Currently amended) The product of claim 9, wherein instructions to detect
detecting a sequence of one or more user navigation inputs comprises comprise
instructions to:

detect detecting a sequence of backward user navigation inputs, the
sequence having a first user navigation input and a last user
navigation input;

~~initialize~~ initializing the navigation string when the first user navigation

input is detected;

~~start~~ starting a time out interval with each backward user navigation input;

and

~~determine~~ determining the last user navigation input as the input after

which no backward user navigation inputs are detected within the

time out interval.

12. (Currently amended) The product of claim 9, wherein the user interface elements

have an order, and ~~instructions to shift~~ shifting input focus comprises ~~to the user~~

~~interface element comprise instructions to~~:

~~shift~~ shifting input focus in the forward direction to a next user interface

element in ~~order in~~ the current group having a text label starting

with the same characters as the characters in the navigation string,

if the user navigation input is the forward user navigation input; and

~~shift~~ shifting input focus in the reverse direction to a previous user

interface element in ~~order in~~ the current group having a text label

starting with the same characters as the characters in the

navigation string, if the user navigation input is the backward user

navigation input.

13. (Currently amended) A computer program product tangibly embodied in a

computer-readable storage medium, the product comprising instructions

operable to cause a data processing apparatus to execute a method for

navigating user interface elements displayed on a ~~display~~ screen, method

comprising:

~~at application run time,~~ grouping the displayed user interface elements

alphabetically into groups according to characters contained in

respective text labels associated with the user interface elements,

the user interface elements indicating, on the ~~display~~ screen, a user interface element currently having focus to receive user input;

detecting an ensemble of sequential user activation inputs, ~~each user activation input~~ comprising: a character, ~~thereby detecting a sequence of characters, each user activation input comprising one of~~

a forward user activation input ~~or a backward user activation input, the forward user activation input~~ comprising a forward activation modifier key press combined with a key press of ~~a group identifier~~ at least one text character identifying one of the groups of user interface elements, and

~~the~~ a backward user activation input comprising a backward activation modifier key press combined with a key press of ~~a group identifier~~ at least one text character identifying one of the groups of user interface elements;

identifying a group of user interface elements by comparing the ~~sequence of~~ characters contained in the text labels associated with the user interface elements to the ~~group identifier~~ key press of at least one text character; ~~and~~

performing an action associated with a user interface element in the identified group;

~~wherein,~~ when the user activation input is detected:

determining a current group of user interface elements that contains the user interface element currently having input focus, and

determining a target group of user interface elements that has a corresponding text label containing characters matching

the ~~group identifier~~ key press <u>of at least one text</u>
<u>character</u>;

~~wherein~~ when the user activation input is the forward user activation input:

shifting input focus ~~is shifted~~ in the forward direction to a next
user interface element in the current group having an
associated text label with characters matching the ~~group~~
~~identifier~~ key press <u>of the at least one text character</u>
<u>when</u> ~~if~~ the current group is the same as the target group,
and

shifting input focus ~~is shifted~~ to a first user interface element in
the target group <u>when</u> ~~if~~ the current group is not the same
as the target group <u>;</u>[[,]] and

~~wherein~~ when the user activation input is the backward user activation
input:

shifting input focus ~~is shifted~~ in the reverse direction to a
previous user interface element in the current group
having an associated text label with characters matching
the ~~group identifier~~ key press <u>of at least one text</u>
<u>character when</u> ~~if~~ the current group is the same as the
target group, and

shifting input focus ~~is shifted~~ to <u>a</u> user interface element last in
order in the target group <u>when</u> [[if]] the current group is
not the same as the target group .

14. (Currently amended) The product of claim 13, wherein <u>the method further</u>
<u>comprises</u> ~~instructions to detect an ensemble comprise instructions to:~~ ~~detect a~~
~~sequence of one or more characters that~~

determining whether the key press of at least one text character uniquely identifies a user interface element; and

automatically executing an action associated with the user interface element when it is determined that the key press of at least one text character uniquely identifies [[a]] the user interface element.

15.   (Currently amended) The product of claim 14, wherein the ~~sequence of~~ key press of at least one text character comprises ~~or more characters is~~ a sequence of identical group identifier characters.

16.   (Currently amended) The product of claim 13, wherein ~~instructions to detect~~ detecting an ensemble comprises detecting ~~comprise instructions to:detect~~ one or more sequential user activation inputs entered by a user within a time threshold.

17.   (Currently amended) The product of claim 13, wherein the method further comprises delimiting the user activation input based on the pressing and releasing of an activation modifier key ~~delimits the user activation inputs in the ensemble~~.

18.   (Currently amended) A computer implemented method for navigating user interface elements displayed on a ~~display~~ screen, the method comprising the steps performed by a computer of:

at application run time, grouping the user interface elements displayed on the screen alphabetically into user interface element groups according to characters contained in respective text labels associated with the user interface elements, the user interface elements indicating, on the ~~display~~ screen, a user interface element currently having focus to receive user input;

detecting a user navigation input comprising:

one of a forward user navigation input ~~or a backward user navigation input, the forward user navigation input~~ comprising a forward modifier key press combined with a key press of ~~a group identifier~~ <u>at least one text character identifying one of the groups of user interface elements</u>, and

~~the~~ <u>a</u> backward user navigation input comprising a backward modifier key press combined with a key press of ~~a group identifier~~ <u>at least one text character identifying one of the groups of user interface elements</u>;

identifying a group of user interface elements associated with the ~~group identifier~~ key press <u>of at least one text character</u> by comparing the ~~group identifier~~ key press <u>of at least one text character</u> to the characters contained in the text labels associated with the user interface elements; and

shifting input focus to a user interface element in the identified group based on the user navigation input<u>, the shifting comprising</u>[[;]]

~~wherein,~~ when the user navigation input is detected:

determining a current group <u>of user interface elements</u> that contains the user interface element currently having input focus, and

determining a target group <u>of user interface elements</u> that has an associated text label containing characters matching the ~~group identifier~~ key press <u>of at least one text character</u>;

~~wherein~~ when the user navigation input is the forward user navigation input:

<u>shifting</u> input focus ~~is shifted~~ in the forward direction to a next user interface element in

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the current group having a text label

containing characters matching the ~~group identifier~~ key press <u>of at least one text character when</u> ~~if~~ the current group is the

same as the target group , and

<u>shifting</u> input focus ~~is shifted~~ to a first user

interface element in the target group <u>when</u> ~~if~~ the current group is not the same as the

target group, and

~~wherein~~ when the user navigation input is the backward user

navigation input:

<u>shifting</u> input focus ~~is shifted~~ in the reverse direction

to a previous user interface element in the

current group having a text label ~~containing characters~~ matching the ~~group identifier~~ key

press ~~if~~ <u>of at least one text character when</u> the

current group is the same as the target group,

and

<u>shifting</u> input focus ~~is shifted~~ to a user interface

element last in order in the target group <u>when</u> ~~if~~ the current group is not the same as the target

group .

19.   (Canceled)

20.   (Currently amended) The method of claim 18, wherein the identified group of
user interface elements is identified when the text labels associated with the user
interface elements contain first <u>characters</u> matching the ~~group identifier~~ key press
<u>of at least one text character</u>.

21. (Previously Presented) The method of claim 18, wherein the user interface elements are grouped based on the first characters contained in the associated text labels of the user interface elements.

22. (Currently amended) The method of claim 18, wherein:

the forward user navigation input ~~is~~ comprises a combination of one or more forward modifier keys and the ~~group identifier~~ key press of at least one text character; and

the backward user navigation input ~~is~~ comprises a combination of one or more backward modifier keys and the ~~group identifier~~ key press of at least one text character.

23. (Currently amended) A computer implemented method[[,]] for a software application having user interface elements displayed on a ~~display~~ screen, the method performed by a computer and comprising the steps of:

~~at application run time,~~ grouping the user interface elements displayed on the screen alphabetically into ~~user interface element~~ groups according to characters contained in text labels associated with the user interface elements, the interface elements indicating, on the ~~display~~ screen, a user interface element currently having focus to receive user input;

detecting a sequence of one or more user navigation inputs, ~~each user navigation input~~ comprising:

~~one of~~ a forward user navigation input ~~or a backward user navigation input, the forward user navigation input~~ comprising a forward modifier key press combined with a key press of ~~a group identifier~~ at least one text character identifying one of the groups of user interface elements, and

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the a backward user navigation input comprising a backward
modifier key press combined with a key press of a~~group
identifier~~ at least one text character identifying one of the
groups of user interface elements;

generating a navigation string from the ~~sequence of one or more~~ forward
or backward user navigation ~~inputs~~ input; and

identifying a group of user interface elements by comparing the navigation
string to the characters contained in the text labels associated with
the user interface elements;

shifting input focus to a user interface element in the identified group
based on the navigation string, the shifting comprising:[[;]]

~~wherein,~~ when the user navigation input is detected:

determining a current group of user interface elements
that contains the user interface element currently
having input focus, and

determining a target group of user interface elements that
has an associated text label containing characters
~~that correspond to~~ matching the ~~group identifier~~
key press of at least one text character;

~~wherein~~ when the user navigation input is the forward user
navigation input:

shifting input focus ~~is shifted~~ in the forward direction
to a ~~next~~ user interface element next in the
current group having a text label containing
characters matching the ~~group identifier~~ key
press of at least one text character when ~~if~~ the
current group is the same as the target group,
and

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shifting input focus is shifted to a first user interface
element in the target group when if the current
group is not the same as the target group, and

wherein when the user navigation input is the backward
user navigation input:

shifting input focus is shifted in the reverse
direction to a previous user interface
element in the current group having a
text label containing characters
matching the group identifier key press
of at least one text character when if the
current group is the same as the target
group, and

shifting input focus is shifted to a user interface
element last in order in the target group
if the current group is not the same as
the target group.

24. (Previously Presented) The method of claim 23, wherein detecting a sequence of
one or more user navigation inputs comprises:

detecting a sequence of forward user navigation inputs, the sequence
having a first user navigation input and a last user navigation input;

initializing the navigation string when the first user navigation input is
detected;

starting a time out interval with each forward user navigation input; and

determining the last user navigation input as the input after which no
forward user navigation inputs are detected within the time out
interval.

25.   (Previously Presented) The method of claim 23, wherein detecting a sequence
of one or more user navigation inputs comprises:

> detecting a sequence of backward user navigation inputs, the sequence
>> having a first user navigation input and a last user navigation input;

> initializing the navigation string when the first user navigation input is
>> detected;

> starting a time out interval with each backward navigation key press; and

> determining the last navigation key press as the key press after which no
>> backward navigation key presses are detected within the time out
>> interval.

26.   (Currently amended) The method of claim 23, wherein the user interface
elements have an order, and shifting input focus comprises:

> if the user navigation input is the forward user navigation input, shifting
>> input focus in order in the forward direction to a next user interface
>> element in the current group having a text label starting with the
>> same characters as the characters in the navigation string; and

> if the user navigation input is the backward user navigation input, shifting
>> input focus in order in the reverse direction to a previous user
>> interface element in the current group having a text label starting
>> with the same characters as the characters in the navigation string.

27.   (Currently amended) A computer implemented method for providing activation
keys for user interface elements displayed on a ~~display~~ screen, the method
performed by a computer and comprising the steps of:

> ~~at application run time,~~ grouping the user interface elements displayed on
>> the screen alphabetically into user interface element groups
>> according to characters contained in respective text labels

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associated with the user interface elements, the user interface elements indicating, on the ~~display~~ screen, a user interface element currently having focus to receive user input;

detecting an ensemble of sequential user activation inputs, ~~each user activation input~~ comprising: a ~~character, thereby detecting a sequence of characters, each user activation input comprising one of~~

a forward user activation input ~~or a backward user activation input, the forward user activation input~~ comprising a forward activation modifier key press combined with a key press of ~~a group identifier~~ at least one text character identifying one of the groups of user interface elements, and

~~the~~ a backward user activation input comprising a backward activation modifier key press combined with a key press of ~~a group identifier~~ at least one text character identifying one of the groups of user interface elements;

identifying a group of user interface elements by comparing the characters contained in the text labels associated with the user interface elements to the ~~sequence~~ key press of at least one text character ~~characters~~; and

performing an action associated with the ~~a~~ user interface element in the identified group, the performing comprising:[[;]]

~~wherein,~~ when the user activation input is detected:

determining a current group of user interface elements that contains the user interface element currently having input focus, and

determining a target group ~~of user interface elements~~ that has an associated text label containing characters matching to the ~~group identifier~~ key press ~~of at least one text character~~;

~~wherein~~ when the user activation input is the forward user activation input:

shifting input focus ~~is shifted~~ in the forward direction to a next user interface element in the current group having a text label containing characters matching the ~~group identifier~~ key press ~~of at least one text character when~~ if the current group is the same as the target group, and

shifting input focus ~~is shifted~~ to a first user interface element in the target group ~~if~~ when the current group is not the same as the target group, and

~~wherein~~ when the user activation input is the backward user activation input:

shifting input focus ~~is shifted~~ in the reverse direction to a previous user interface element ~~previous~~ in the current group having a text label containing characters matching the ~~group identifier~~ key press ~~of at least one text character when~~ if the current group is the same as the target group, and

shifting input focus ~~is shifted~~ to ~~a~~ user interface element last in order in the target group ~~if~~ when the current group is not the same as the target group.

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28.   (Currently amended) The method of claim 27, <u>further comprising</u> ~~wherein detecting an ensemble comprises~~:

        <u>determining whether the key press of at least one text character uniquely identifies a user interface element; and</u>

        <u>automatically executing an action associated with the user interface element when it is determined that the key press of at least one text character</u> ~~detecting a sequence of one or more characters that~~ uniquely identifies [[a]] <u>the</u> user interface element.

29.   (Currently amended) The method of claim 28, wherein the ~~sequence of one or more characters is~~ <u>key press of at least one text character comprises</u> a sequence of identical group identifier characters.

30.   (Currently amended) The method of claim 27, wherein detecting an ensemble comprises[[:]] detecting one or more sequential user activation inputs entered by a user within a time threshold.

31.   (Currently amended) The method of claim 27, ~~wherein:~~ <u>further comprising delimiting the user activation inputs in the ensemble based on</u> the pressing and releasing of an activation modifier key ~~delimits the user activation inputs in the ensemble~~.

32.   (Previously Presented) The product of claim 1, wherein, if there is no current group, the target group is deemed to be different from the current group and input focus is shifted to a first user interface element in the target group.

33.   (Previously Presented) The product of claim 9, wherein, if there is no current group, the target group is deemed to be different from the current group and input focus is shifted to a first user interface element in the target group.

34. (Previously Presented) The product of claim 13, wherein, if there is no current group, the target group is deemed to be different from the current group and input focus is shifted to a first user interface element in the target group.

35. (Previously Presented) The method of claim 18, wherein, if there is no current group, the target group is deemed to be different from the current group and input focus is shifted to a first user interface element in the target group.

36. (Previously Presented) The method of claim 23, wherein, if there is no current group, the target group is deemed to be different from the current group and input focus is shifted to a first user interface element in the target group.

37. (Previously Presented) The method of claim 27, wherein, if there is no current group, the target group is deemed to be different from the current group and input focus is shifted to a first user interface element in the target group.

38. (New) The method of claim 18, further comprising:

   receiving a display of a graphical user interface, the graphical user interface including the user interface elements;

   identifying the user interface elements in the display of the graphical user interface; and

   extracting from the display text labels for the identified user interface elements.